

LOCK ROD CLUTCH FOR OVEN LATCH

ABSTRACT

An oven door lock for self-cleaning ovens is described. The oven door lock includes a clutch mechanism which locks and unlocks the oven door at substantially different temperatures, in particular, the lock temperature is substantially higher than the unlock temperature. The clutch mechanism comprises a thermally responsive element, a clutch, and a lock member. During heating, in a self-clean or normal cooking operation, an expanding thermally responsive element, acting upon the clutch, causes the lock member to lock the oven door. During cool down, the contracting thermally responsive element, acting upon the clutch in an opposing direction, in concert with a restraining spring, causes the lock member to unlock the oven door at a temperature substantially lower than the locking temperature.